

AMENDMENTS TO THE CLAIMS

The listing of claims presented herein replaces all prior versions of claims.

1-15 (Cancelled)

16. (Previously presented) A man-rated device to which a person is removably secured, the device for use with an associated structure which the person intends to access, the device comprising:

multiple, modular components dimensioned to be man-rated when assembled, the components including a base and at least one, elongated, substantially cylindrical member, the base having an element adapted to be mounted in operative proximity to the associated structure, the member formed substantially from at least one material selected from the group consisting of aluminum, carbon fiber composites, KEVLAR fibers, fiberglass, and aluminum-ceramic composites;

the member having one end removably secured to the base without being welded thereto, the other end of the member having means for removably securing a person thereto, whereby the components can be readily assembled and disassembled;

the combined weight of the components being less than the corresponding weight if the components were formed of steel.

17. (Previously presented) The device of claim 16, wherein the device comprises a transformer-type device with the member extending substantially vertically from the base, the member being formed substantially of a carbon-fiber composite.

18. (Previously presented) The device of claim 16, wherein the ends of the member include a reinforced portion to increase the strength of the member under compressive loads.

19. (Previously presented) The device of claim 18, wherein the reinforced portion comprises an insert at the end of the member secured to the base.

20. (Previously presented) The device of claim 17, wherein the member comprises a tube, and further comprising an extension mast telescopically received in the tube, and a hoisting means removably secured to the extension mast.

21. (Previously presented) The device of claim 16, wherein the base is substantially cast and substantially free of welded components.

22. (Previously presented) A man-rated device to which a person is removably secured, the device for use with an associated structure which the person intends to access, the device comprising:

multiple, modular components dimensioned to be man-rated when assembled, the components including a base having an element adapted to be mounted in operative proximity to the associated structures;

wherein the modular components further include multiple elongated members and at least one joint section, the joint section including an elbow having two legs extending outwardly at an angle from a central axis, the elongated members including a post and an extension arm, the extension arm having a proximal end and a free end;

wherein one leg of the elbow is removably secured to one of the ends of the post without being welded thereto, and the other leg of the elbow is removably secured to the proximal end of the extension arm without being welded thereto, the free end of the extension arm being spaced a lateral distance from the post to define an offset;

the post having one end removably secured to the base without being welded thereto, whereby the components can be readily assembled and disassembled;

wherein the post and the extension arm are formed of at least one material selected from the group consisting of aluminum, carbon fiber composites, KEVLAR fibers, fiberglass, and aluminum-ceramic composites.

23. (Previously presented) The device of claim 22, wherein the multiple elongated members comprise additional elongated members which are interchangeable with either the post, the extension arm, or both, the additional elongated members having lengths differing from the length of either the post or the extension arm.

24. (Previously presented) The device of claim 23, wherein the additional elongated members comprise interchangeable extension arms having fixed lengths, the fixed lengths selected to range between 18" and 48".

25. (Previously presented) The device of claim 22, wherein the elbow is asymmetric, making one of the legs into a shorter leg, and the other of the legs into a longer leg, each of the legs terminating in respective leg ends, each of the leg ends being able to removably fit in either the proximal end of the extension arm or the end of the post, whereby the elbow is reversible, the free end of the extension arm defining a first offset when the extension arm is secured to the shorter leg and defining a second offset, longer than the first offset, when the extension arm is secured to the longer leg.

26. (Previously presented) A man-rated, confined space device, comprising:
multiple, modular components dimensioned to be man-rated when assembled,
the components including:

a base with a structure adapted to be mounted in operative proximity to the confined space;

at least two tubes, one of the tubes comprising a post, and the, other of the tubes comprising an extension arm;

an elbow between the post and the extension arm, and

means for hoisting loads into and out of the confined space;

the components being removably interconnected without welding between the components, whereby the components can be readily assembled and disassembled.

27. (Previously presented) The device of claim 26, wherein the tubes are formed of at least one material selected from the group consisting of aluminum, carbon fiber composites, KEVLAR fibers, fiberglass, and aluminum-ceramic composites.

28. (Previously presented) The device of claim 26, wherein the tubes further include additional tubes which are interchangeable with either the post, the extension arm, or both, the additional tubes having lengths differing from the lengths of either the posts or the extension arms, or both.

29. (Previously presented) The device of claim 26, wherein the elbow and the base are cast metal, the two tubes, the elbow, and the base having mating ends to be fixedly and non telescopically secured to each other.

30. (Previously presented) The device of claim 26, wherein the elbow is asymmetric, making one of the legs into a shorter leg, and the other of the legs into a longer leg, each of the legs terminating in respective leg ends, each of the leg ends being able to removably fit in either the proximal end of the extension arm or the end of the post, whereby the elbow is reversible, the free end of the extension arm defining a first offset when the extension arm is secured to the shorter leg, and defining a second offset, longer than the first offset, when the extension arm is secured to the longer leg.

31. (Currently amended) A man-rated davit assembly for use with a confined space entry device with a base and means for hoisting loads, the davit assembly comprising:

a substantially vertical post member having a first end removably secured to and slidably engaged in the base and extending outwardly therefrom and terminating in a second end;

an extension arm having a proximal end removably secured to and slidably engaged in one of the leg ends of the an elbow, the extension arm extending from the elbow

and terminating in a free end, the other leg end of the elbow being removably secured to and slidably engaged in the second end of the post; and

an asymmetric elbow having a longer leg and a shorter leg, each of the legs adapted to slidably engage and be removably secured to either one of the post and post or the extension arm, the elbow being reversible to locate the free end of the extension arm in first and second respective offset distances from the post; and

a nose assembly removably secured to and having a portion slidably engaged in the free end of the extension arm;

wherein the post and the extension arm are formed substantially from non-metal, fiber polymer matrix composite material.